

## REMARKS/ARGUMENTS

Applicants have studied the Final Office Action dated January 29, 2007 and have made amendments to the claims. It is submitted that the application, as amended, is in condition for allowance. By virtue of this amendment, claims 1-2, 4, 6-14, 16, 18-26, 28, 30-37, 40, 42-52, 55-67, and 70 are pending. Claims 1, 13, 25, 37, 50, 51, 52, and 65-67 are amended. Claims 2, 14, 26, 38, 53, and 69 have been cancelled. Reconsideration and allowance of the pending claims in view of the above amendments and the following remarks is respectfully requested.

In the Office Action, the Examiner:

(2-62) rejected claims 1-2, 4, 6-14, 16, 18-26, 28, 30-38, 40, 42-53, 55-67, and 69-70 under 35 U.S.C. § 103(a) as being anticipated by Petrovykh (U.S. Pub. No. US 2002/055975 A1) in view of Auerbach (U.S. Patent No. 6,549,937).

### (2-62) Rejection under 35 U.S.C. §103(a) Petrovykh in view of Auerbach

As noted above, the Examiner rejected claims 1-2, 4, 6-14, 16, 18-26, 28, 30-38, 40, 42-53, 55-67, and 69-70 under 35 U.S.C. § 103(a) as being anticipated by Petrovykh (U.S. Pub. No. US 2002/055975 A1) in view of Auerbach (U.S. Patent No. 6,549,937).

Before discussing the prior art in detail, Applicants believe that a brief review of the invention as claimed, would be helpful. Amended independent claim 1 recites, *inter alia*:

a first interface mutually registered with at least one of a plurality of client messaging applications, the interface for performing the steps of:  
    receiving a message from the at least one of the plurality of client messaging applications, **wherein the message includes a request for information**; and  
    translating a calling convention of the message to a calling convention of a base code;  
a computer communicatively coupled to the first interface, the computer for performing the steps of:  
    determining, **based on the request for information**, the

destination of the message, wherein the destination is an autonomous computer program that acts as an agent for **a client-user for accessing an informational database**; and  
selecting the autonomous computer program determined to be the destination of the **message for accessing the informational database to retrieve the information associated with the request for information**; and  
a second interface coupled to the computer, the second interface for performing the steps of:  
translating, in response to the selecting, the message in the calling convention of the base code to a calling convention of the autonomous computer program determined to be the destination of the message; and  
transmitting, in response to the translating, the message to the selected autonomous computer program determined to be the destination of the message without further user intervention.  
(emphasis added)

The present invention is a system and method for allowing client messaging applications, regardless of the calling convention used by the client application, to communicate with a third party application, regardless of the calling convention used by the third parties, through the use of bots. Bots are autonomous computer programs that act as agents for other programs and are operable to transmit messages from any client messaging application to any third party application. Instant application, page 7, lines 15-16 and page 12, line 20 through page 13, line 4.

In one example of the operation of a bot, a bot, as used in the present invention, is programmed to retrieve telephone numbers from a telephone number database. The bot receives from a client an instant text message including the text request: "Phone number: John Doe." The bot recognizes the text of the instant message as a request for a telephone number. The text of the instant message is then translated into a query that is handled by a third party application, which, in one example, is a telephone number database. Using this query, the bot then retrieves the telephone number from the third party application.

Applicants maintain and refer the Examiner to the remarks and arguments discussed in detail in Applicants' June 19, 2006 response to the March 17, 2006 Office that point out the deficiencies of the Petrovykh reference, in light of the presently claimed. The Applicants also maintain and refer the Examiner to the remarks and arguments discussed in detail Applicants' November 15, 2006 in response to the August 15, 2006 Office Action that point out the deficiencies of the Auerbach reference. However, the Applicants provide additional remarks and arguments below with respect to Petrovykh and Auerbach in view of the amendments made herein.

It should be noted that independent claims 13, 25, 37, 50, 51, 52, and 65-67 have been amended similar to claim 1 recited above. Therefore, the remarks and arguments below made with respect to independent claim 1 are also applicable to independent claims 13, 25, 37, 50, 51, 52, and 65-67.

With respect to the claim element:

*...receiving a message from the at least one of the plurality  
of client messaging applications...*

The Examiner states that Petrovykh "discloses [a] system of receiving and registering a request form users which matches the intent of the user request from the instant message". The Examiner cites page 7, paragraph 73 of Petrovykh in support thereof. However, the Applicants have amended claim 1 to more clearly and distinctly recite:

*...receiving a message from the at least one of the plurality  
of client messaging applications, **wherein the message includes  
a request for information***

The added language of **wherein the message includes a request for information** has been copied from claim 2, which has been cancelled (and similar claims 14, 26, 38, and 53) thereby rendering the rejection of claim 2 (claims 14, 26, 38, and 53) moot. The Examiner states Petrovykh at page 7, paragraph 73 also teaches this claim

element. However, the Applicants have also amended claim 1 to more clearly and distinctly recite

determining, **based on the request for information**, the destination of the message, wherein the destination is an autonomous computer program that acts as an agent for **a client-user for accessing an informational database**

Stated differently, the presently claimed invention now more clearly recites that a user sends an instant message requesting information and based on the type of information requested, a bot is determined to be the destination and subsequently selected for reception of the message.

The Examiner states that Petrovykh teaches “determining the destination of the message, wherein the destination of the message is an autonomous computer program that acts as an agent for another program”. The Examiner cites FIG. 10 and 11; page 4, paragraph 37; page 6, paragraph 70; page 10, paragraph 110; page 11, paragraphs 114-117; and page 17, paragraph 177. The Examiner further states that Petrovykh “discloses that the system which includes agent which generating, sending, and receiving instant messages which routing client instant message to selected IP addresses on the network and capable of IP address translation).

Page 4, paragraph 37 of Petrovykh merely states that “ a proxy server is provided for routing instant messages sourced from clients connected to a data-packet-network to selected ones of a plurality of customer service representatives connected to the network...”at least one version of instant messaging software executable therein for generating, sending, and receiving instant messages, a software routing component executable therein for routing client instant message requests to selected IP addresses on the network...”. Nowhere does Petrovykh teach in this citation that the destination of the message is **determined based on the request for information**. Furthermore, nowhere does this citation teach determining **an autonomous computer program is determined to be the destination based on the requested**, where the autonomous

computer program acts as an agent for **a client-user for accessing an informational database**. Therefore, the presently claimed invention distinguishes over Petrovykh for at least these reasons.

Page 6, paragraph 70 of Petrovykh merely teaches a status server that monitors the status of agents, which are human customer server representatives. Nowhere does this citation teach “determining, **based on the request for information**, the destination of the message, wherein the destination is an autonomous computer program that acts as an agent for **a client-user for accessing an informational database**”. Therefore, the presently claimed invention distinguishes over Petrovykh for at least these reasons as well.

Page 10, paragraphs 110 of Petrovykh merely teaches a Foreign Presence Server (“FPS”) 93 and an agent that monitors a user’s status. A user being a customer or potential customer. A customer service representative can subscribe to a FPS to obtain status (e.g., available/not available for a call) associated with a customer. When a customer contacts the communication center a server obtains status information. The FPS is only associated with customers. This citation clearly does not teach or suggest “determining, **based on the request for information**, the destination of the message, wherein the destination is an autonomous computer program that acts as an agent for **a client-user for accessing an informational database**”. Therefore, the presently claimed invention distinguishes over Petrovykh for at least these reasons as well.

Page 11, paragraphs 114-117 of Petrovykh merely teach multiple Foreign Present Servers and Customer Presence Servers (“CPS”). These are not autonomous computer program that act as an agent for **a client-user for accessing an informational database**. Nor are the FPS and CPS of Petrovykh the destination of a message requesting information determined to be the destination of the message based on the request for information. Therefore, the presently claimed invention

distinguishes over Petrovykh for at least these reasons as well.

Page 17, paragraph 177 of Petrovykh merely states that IMPP services are supported and IM events can be intelligently routed to Customer Service representatives. This certainly does not teach determining, **based on the request for information**, the destination of the message, wherein the destination is an autonomous computer program that acts as an agent for **a client-user for accessing an informational database**". Therefore, the presently claimed invention distinguishes over Petrovykh for at least these reasons as well.

FIG. 10 and the corresponding operational flow FIG. 11 of Petrovykh merely teach how IMPP event routing occurs. In other words, these figures and their corresponding text merely teach how to route instant messages from a customer to a customer representative based on rules and policies. Paragraphs 185-186 and 191-193 corresponding to FIG. 10 clearly show that an autonomous computer program that acts as an agent for **a client-user for accessing an informational database** is not being determined **based on requested information in the received message**. These paragraphs have been copied below.

[0185] An important goal of the present invention is to provide a controlled routing program that brokers communication between clients, namely 1024 and 1025 and agents (customer-service representatives-CSRs) of center 1026 operating at LAN-connected stations A and B. It is noted herein that agent presence information, client presence information, center status information and passive client interface capabilities as was described in disclosure covered by FIGS. 1-9 above may be assumed to be installed and operational within proxy server 1003. Server 1003 is adapted, in a preferred embodiment, as a central communication server and event router/switch through which all IM communication to and from agents in center 1026 passes. As previously described, router 1007 running application 1008 may also be considered to be integrated in some embodiments with proxy 1003.

[0186] In order to provide intelligent routing rules for routing IM events, T-server 1015 must be consulted by proxy 1003 for rules-related states such as agent availability, skill level, and so on. In this example, server 1003

consults server 1015 through LAN 1002. In another embodiment there may be a direct data link connecting the two servers. In still other embodiments the two servers may be implemented as one more powerful server.

[0191] Assume now that a CSR at station 1024 desires to contact center 1026 through server 1022, in this case, an AOL.TM. server. SWa is proprietary AOL.TM. IM software. By invoking an icon presented in the users interface, an IM requesting communication is generated and sent to server 1022 hosting the communication at this point. Server 1022 sends notification of the received event/request to proxy server 1003. It is important to note here that for security reasons, the only visible address to the user IM software is the IP address of proxy 1003. Proxy server 1003 having an appropriate instance of SWa installed therein responds by generating an IM to server 1022 to open dialogue. Proxy 1003 is capable of robotic IM communication simulating the function of an Interactive Voice Response (IVR) software. That is to say that before a request is eventually routed to a CSR representative, proxy server 1003 may execute one or more transactions with the user at server 1022 to find out how best to route the call.

[0192] When proxy 1003 has enough information to route a request, it notifies T-server 1015 of a pending request and associated parameters. Parameters may include a user's IP address, telephone number, version and brand of the IM application used by the user and other information subsequent to privacy policies of the acting IMPP provider. T-Server 1015 executes an agent-availability routine in this example to look for a CSR at any of stations A-N that has a running instance of AOL.TM. IM software or one compatible to the user's software and looks to see if the particular agent is available for an IM notification. T-server 1015 selects an available agent and sends notification of the selection back to proxy 1003.

[0193] Once selection is accomplished, proxy 1003 notifies the CSR with the user IM request and the CSR responds to server 1003 opening a connection that is now hosted by proxy 1003. A variety of options can be presented to users and made available through IMPP providers, such as the previously-described passive interaction interface, communication center status data, agent presence information and so on.

As can be seen from these paragraphs, Petrovykh is trying to route IMPP events based on rules/related states such as agent availability, skill level, and so. FIG. 11 of Petrovykh further supports these differences between Petrovykh and the present invention. FIG. 11 of Petrovykh teaches routing a customer to a particular customer

service work station.

The destination of a message in Petrovykh is a customer service representative, not an autonomous computer program. Petrovykh never teaches that a destination of a message is an autonomous computer program. Petrovykh does not even teach autonomous computer programs such as bots that act as an agent for **a client-user for accessing an informational database**. Petrovykh never teaches that the information requested by the received message is used to determine which autonomous computer program is the destination. Therefore, the presently claimed invention distinguishes over Petrovykh for at least these reasons as well.

Furthermore, independent claims 13, 25, 50-51, and 65-66 further recite “determining, based on the request for information, the destination of the message, **wherein the destination is one of a plurality of autonomous computer programs** that act as agents for a client-user for accessing an informational database”. In other words, the presently claimed invention uses the requested information to determine which autonomous computer program out of a plurality of autonomous computer programs is the destination. Nowhere does Petrovykh teach or suggest this. Therefore, the presently claimed invention distinguishes over Petrovykh for at least these reasons as well.

The Examiner also stated that Petrovykh teaches the claim element:

*selecting the autonomous computer program determined to be the destination of the message*

The Examiner cites page 12, paragraph 123 of Petrovykh in support therefore stating that Petrovykh “discloses that the system of selecting the third party as part of the callback preferences”. Therefore, the Examiner is comparing Petrovykh’s “third party” to the presently claimed autonomous computer program.



However, the Applicants have amended claim 1 to more clearly and distinctly recite “selecting the autonomous computer program determined to be the destination of the message **for accessing the informational database to retrieve the information associated with the request for information**”. However, the third party of Petrovykh is a third party presence server such as ICQ and MSN. These are not autonomous computer program that acts as an agent for **a client-user for accessing an informational database**, as recited for the presently claimed invention. Furthermore, the third party presence servers of Petrovykh are not selected **for accessing the informational database to retrieve the information associated with the request for information**. Therefore, the presently claimed invention distinguishes over Petrovykh for at least these reasons as well.

The Examiner correctly states on Page 4 of the Final Office Action that Petrovykh fails “to teach the claim limitation wherein translating a calling convention of the message to a calling convention of a base code; translating, in response to the selecting, the message in the calling convention of the base code to a calling convention of autonomous computer program determined to be the destination of the message: transmitting, in response to the translating, the message to the selected autonomous computer program determined to be the destination of the message without further user intervention”.

However, the Examiner goes on to combine Petrovykh with Auerbach, stating that Auerbach “teaches system and method for multi-protocol communication in a computer network (see abstract). Auerbach teaches the limitation wherein translating a calling convention of the message to a calling convention of a base code (col. 7, lines 1-16); translating, in response to the selecting, the message in the calling convention of the base code to a calling convention of the autonomous computer program determined to be the destination of the message (col 8, lines 4-38); transmitting, in response to the translating, the message to the selected autonomous computer program determined to be the destination of the

message without further user intervention (col 8, lines 4-38)".

The Examiner states that "[i]t would have been obvious to one of ordinary skill in the art at the time of the invention to modify Petrovykh in view of Auerbach so that the system would convert the outgoing and incoming messages to the appropriate format and will convert to the format that is compatible with the service provider. One would be motivated to do so to have the proper interconversion between the format and message protocol required by the service provider and Application Programming Interface and also transfer or route the message based on the headers of the messages".

The Applicants respectfully disagree. Auerbach is a direct language-to-language converter where a "protocol services module for each service provider translates outgoing messages from the common format provided by the API to the unique format and protocol used by the respective service provider." Auerbach, col. 7, lines 9-12. Therefore, as shown in FIG. 3 of Auerbach, the routing module 128 routes a message in the format of the API 126 to a protocol service module 130, which in turn, converts the message and routes it directly to the service provider server 106. In other words Auerbach simply translates the messages and/or commands to the unique messaging format and protocol supported by one or more service providers. See Auerbach at col. 2, lines 21-23.

Nowhere does Auerbach teach or suggest an autonomous computer program that acts as an agent for **a client-user for accessing an informational database**. Nor does Auerbach teach or suggest, among other things, translating, in response to the selecting, the message in the calling convention of the base code to a calling convention of the autonomous computer program determined to be the destination of the message. Auerbach and Petrovykh are only concerned with direct communication of messages and not with tasks, such as searching databases, as is performed by the bots of the present invention. Therefore, the presently claimed invention distinguishes over Petrovykh alone and/or in combination with Auerbach.

It is accordingly believed to be clear that Petrovykh, whether taken alone or in any combination with Auerbach neither shows nor suggests the features of claims 1, 13, 25, 37, 50, 51, 52, 65, 66, or 67. Claims 1, 13, 25, 37, 50, 51, 52, 65, 66, and 67 are, therefore, believed to be patentable over the art. The dependent claims are believed to be patentable as well because they all are ultimately dependent on either claim 1, 13, 25, 37, 50, 51, 52, 65, 66, or 67, and the Examiner's rejection should be withdrawn

### **CONCLUSION**

In this Response, Applicants have amended certain claims. In light of the Office Action, Applicant believes these amendments serve a useful clarification purpose, and are desirable for clarification purposes, independent of patentability. Accordingly, Applicants respectfully submit that the claim amendments do not limit the range of any permissible equivalents.

Applicants acknowledge the continuing duty of candor and good faith to disclosure of information known to be material to the examination of this application. In accordance with 37 CFR §1.56, all such information is dutifully made of record. The foreseeable equivalents of any territory surrendered by amendment are limited to the territory taught by the information of record. No other territory afforded by the doctrine of equivalents is knowingly surrendered and everything else is unforeseeable at the time of this amendment by the Applicants and their attorneys.

Applicants respectfully submit that all of the grounds for rejection stated in the Examiner's Office Action have been overcome, and that all claims in the application are allowable. No new matter has been added. It is believed that the application is now in condition for allowance, which allowance is respectfully requested.

**PLEASE CALL** the undersigned if that would expedite the prosecution of this application.

Respectfully submitted,

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